

Systemic Operational Design: Improving Operational Planning for the Netherlands Armed Forces

A Monograph

by

Major Jelte R. Groen



**School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas**

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MAJOR Jelte R. Groen

Title of Monograph: Systemic Operational Design: Improving Operational Planning for the Netherlands Armed Forces

Approved by:

Torsten Gersdorf, COL, AR, GE Army

Monograph Director

Kevin C.M. Benson, COL, AR

Director,
School of Advanced
Military Studies

Robert F. Baumann, Ph.D.

Director,
Graduate Degree
Programs

ABSTRACT

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The Armed Forces of the Netherlands are currently in a reorganization process in order to improve the balance between tasks and capabilities. Specific materiel is being disposed of and organizations are downsized to achieve this balance. The financial margin created this way is used to invest in high quality weapon systems. Part of this reorganization is the monopolization of operational level planning at the Defense Staff level to facilitate joint operations. The Directorate of Operations in the Defense Staff has been made responsible for this planning effort, and is now in charge of all planning for joint operations of the Dutch Armed Forces. The planning process used by the Directorate is NATO's Operational Planning Process.

The Operational Theory Research Institute in Israel has developed a different approach for designing operations called Systemic Operational Design. The approach is based on a different theoretical background than the Operational Planning Process, and uses alternative ways to achieve its products. The Operational Planning Process acknowledges the fundamental importance of design for an operation, but does not specify how to construct this design. Therefore, a dedicated design process might offer opportunities for improvement of the Operational Planning Process. This monograph will suggest an improvement of the Operational Planning Process through the application of Systemic Operational Design. Although further experimentation is necessary to explore the possibilities in the Dutch setting, initial experiences with the process are encouraging.

TABLE OF CONTENTS

ABSTRACT	ii
CHAPTER ONE.....	1
SETTING THE STAGE.....	1
INTRODUCTION.....	1
METHODOLOGY	3
TERMINOLOGY	4
LIMITATIONS	5
CHAPTER TWO.....	7
CURRENT SITUATION NETHERLANDS OPERATIONAL PLANNING.....	7
DIRECTION OF MILITARY OPERATIONS	7
OPERATIONAL PLANNING.....	10
ASSESSMENT.....	14
CHAPTER THREE.....	20
SYSTEMIC OPERATIONAL DESIGN.....	20
BACKGROUND	20
GENERAL DESCRIPTION	25
THE PROCESS	28
ASSESSMENT.....	37
CONCLUSION	46
CHAPTER FOUR	47
FINAL REMARKS	47
INTEGRATING SYSTEMIC OPERATIONAL DESIGN.....	47
CONCLUSIONS AND RECOMMENDATIONS	50
BIBLIOGRAPHY	52

TABLE OF FIGURES

Figure 1. Organizational Chart Netherlands Defense Staff.....	11
Figure 2. OODA Spiral Operational Theory Research Institute (OTRI)	26
Figure 3. Systemic Operational Design Process (OTRI)	30

CHAPTER ONE

SETTING THE STAGE

In this first chapter an initial introduction will be presented. Following this introduction, the methodology of the monograph will be explained, including the thesis and research question. Third, some remarks will be made regarding the terminology used in describing the topic. Finally, the limitations of the monograph will be addressed.

INTRODUCTION

No soldier questions the fact that we find ourselves in an era of continuous change, and that this has been triggered by the end of the Cold War. Since then uncertainty has reigned supreme for the Western military establishment, shattering the former certainty of knowing who the opponent was and where to expect him. Protection of national and Allied (NATO) territory was central to the thinking behind military operations.¹ Doctrine, equipment, training, and education were all attuned to this, creating a military organization specialized in fighting a major conventional conflict. After the end of the Cold War new challenges have presented themselves, forcing the military to refocus its efforts, and rethink its purpose. The Armed Forces of the Netherlands also find themselves in this position, where change is not only necessary, but also pressured by the government in its need for relevant forces. The Dutch Armed Forces, like many other allies, have embarked on a journey with an unclear destination, finding the way as it goes along. Many believe the uncertainty of not knowing who the future opponent will be, where and how to confront this opponent, and for how long is our reality from now on.

Experience in recent crisis management operations has also provided incentives for change for the Dutch Armed Forces. Inter-service cooperation proved to be less than what was

¹Netherlands Defence Staff, *Netherlands Defence Doctrine*, (The Hague: Netherlands Defence Staff, 2005), 5.

desirable, urging the government to investigate possible remedies. A subsequent committee report recommended among other things that operations should be conducted jointly, and that the position of the then Chief of Defense Staff should be strengthened to increase his grip on the Services². This resulted in the abolition of the Service Chiefs and the appointment of the Chief of Defense Staff as Commander of the Armed Forces. The former Service Chiefs are now the Operational Commanders of their respective Services. The changed role and responsibility of the Commander of the Armed Forces contributed to his decision to assign his Directorate of Operations as the operational planning staff of the Armed Forces. This Directorate is now responsible for planning and directing all joint operations of the Dutch Armed Forces. Because this change in role and responsibilities of the Directorate of Operations has been implemented only recently, this staff is still exploring how to manifest itself in this new position. Initial experiences have already revealed possible shortcomings with regards to organizational structure, staff capabilities, and workload.³ Depending on future evaluations, changes will be suggested to improve the shortcomings.

The purpose of this monograph is to suggest a change in the process now used by the Directorate of Operations to conduct operational level planning: NATO's Operational Planning Process. This suggestion will be derived from an assessment of the current situation; and an assessment of the Systemic Operational Design process, as constructed by Brigadier General (retired) Shimon Naveh and the Israeli Operational Theory Research Institute.

This relatively new approach for the construction of an operational level design for operations can offer new insights, since it is based on a different theoretical background than

²Korthals, A. H. Reactie op het rapport van de Commissie Opperbevelschap (Reaction on the report by the committee on Supreme Command of the Armed Forces). October 2002. Available at: http://www.mindef.nl/actueel/parlement/kamerbrieven/2002/4/101002_opperbevelhebberschap.aspx. Accessed 16 February 2006.

³Lieutenant H. J. Keij, senior J5 Planner Defense Staff, interviewed by author by telephone, 21 March 2006.

NATO's Operational Planning Process. Systemic Operational Design has its roots in systems theory, which is offering a new language to explain the complexity of the world as we see it today. For as Jamshid Gharajedaghi clarifies: "chaos and complexity are not characteristics of our new reality; they are features of our perception and understanding . . . because we use inadequate concepts to explain it."⁴ He argues that in order to see through chaos and complexity, we need a holistic language, a language of systems.⁵ Systems theory has gained increasing following in the scientific world as the way to address modern issues of complexity. Naveh has used this theory to offer a new approach for designing military operations.⁶

METHODOLOGY

The thesis of this monograph is: "Systemic Operational Design can improve the process for operational level planning of the Directorate of Operations of the Netherlands Defense Staff." The research question for this monograph is therefore the following: "What opportunities for improvement does Systemic Operational Design offer for the planning process used by the Directorate of Operations of the Netherlands Defense Staff?" This research question has been divided into three subordinate research questions. These subordinate research questions are the following:

1. What are the current shortfalls and challenges with regards to operational level planning in the Dutch Armed Forces?
2. What is Systemic Operational Design and how can this process improve the operational level planning for the Armed Forces of the Netherlands?

⁴Jamshid Charajedaghi, *Systems Thinking: Managing Chaos and Complexity* (Boston: Butterworth Heinemann, 1999), 25.

⁵*Ibid.*, 26.

⁶Systems Theory was first introduced by Ludwig von Bertalanffy in the 1940s, good explanations on the subject can be found Laszlo's "The Systems View of the World," Axelrod and Cohen's "Harnessing Complexity" and Waldrops "Complexity."

3. What are the implications of an implementation of (aspects of) Systemic Operational Design?

The first research question will be addressed in Chapter Two, providing a description of this situation and a subsequent assessment. The second research question will be answered in Chapter Three. In this chapter a description of the process will be followed by an assessment of the process and its possible value in the Dutch setting. The third research question is discussed in Chapter Four. Chapter Four will, first of all, suggest an improvement of the planning process used by the Directorate of Operations. It will subsequently address the conclusions that can be drawn from the issues discussed. Finally, recommendations for the way ahead regarding operational level planning in the Netherlands' Armed Forces will be presented.

TERMINOLOGY

Until recently, no overarching Defense doctrine existed in the Netherlands. The Services established their own doctrine in relative isolation from the other Services. Although the use of advisors from other Services in developing new doctrine is by now fairly common, it is not yet formally institutionalized. The changed role of the former Chief of Defense Staff to Commander of the Armed Forces, and the political pressure to operate joint on operations led to the publication of the Netherlands Defence Doctrine in 2005, to provide a common reference for the Services. This publication also acknowledges NATO's Allied Joint Publications as applicable wherever joint operations are concerned.⁷ Joint doctrine for the Dutch armed forces is therefore NATO doctrine. Consequently, operational level terminology is also that of NATO. Since the Services have always used NATO doctrine as a reference for their own doctrine, contradictions are rare if any. Where applicable, explanations of NATO terminology will be provided to prevent possible confusion with U.S. joint doctrine. Also, the understanding of the terms used by the

⁷Netherlands Defence Staff.

Israeli designers of the Systemic Operational Design process will be provided when necessary to ensure clarity.

LIMITATIONS

This monograph is limited to an assessment of Systemic Operational Design in order to improve the operational level planning process used in the Dutch Armed Forces. No suggestions will be made to change the organizational structure or personnel requirements related to the new role and responsibilities of the Directorate of Operations. Although these are important related issues, which need to be addressed also, they are outside the scope of this monograph. NATO's Operational Planning Process is also used by the German/Netherlands Corps, but this organization is not considered in this monograph, since alterations to their process requires not only Dutch, but also German approval.

The process of Systemic Operational Design is not yet described in any official publication. Much of the writings on the process in this monograph is therefore based on personal experience while conducting the process in several sessions. As part of the SAMS program, the constructor of the process, Shimon Naveh, has explained the process to a limited group of students. During the subsequent practice sessions and exercises he has been mentoring the group, providing valuable insights and understanding of the process. The theoretical background of Systemic Operational Design has been researched through literature study on systems theory, complexity, Chinese thinking, decision making, the operational level of war, and doctrine in general. No real world experience outside Israel exists to date on the use of Systemic Operational Design. The U.S. Army is experimenting with the possibilities of the process for its operational level planning effort, but this has so far been limited to exercises.⁸ Also, the process is not commonplace in the Israeli Defense Forces either: commanders can use it, but it is not

⁸TRADOC has experimented, and is experimenting with Systemic Operational Design in the Unified Quest Exercises '05 and '06 to explore this process.

institutionalized (yet?) as the preferred option of the users. A subject matter expert on Systemic Operational Design can greatly enhance the understanding of the process for initial users.

Although Systemic Operational Design is intended to be an operational level process, it might also prove useful at the tactical level. The operational level is not linked to a specific force grouping anymore, and actions by tactical commanders can have strategic consequences.

Experimentation with Systemic Operational Design at tactical level will have to be conducted to validate this assumption. A staff is necessary to perform this, therefore the battalion is the lowest level suitable to conduct this experiment.

CHAPTER TWO

CURRENT SITUATION NETHERLANDS OPERATIONAL PLANNING

This chapter will address the current situation of the Netherlands Armed Forces with regards to operational planning. Situation in this context means the organizations and processes involved. First, a brief overview of the Dutch situation concerning national direction of military operations will be presented. Second, the organization responsible for operational planning and the planning process it uses (NATO's Operational Planning Process) will be discussed. Finally, an assessment of this current situation will be made.

DIRECTION OF MILITARY OPERATIONS

In the Kingdom of the Netherlands, decisions to use military force are made at the political level, like in probably all modern democracies. The Prime Minister, the Minister of Foreign Affairs and the Minister of Defense are the key actors in this decision, which is made eventually by the government as a whole. The most common situation is a request for participation in an operation from international institutions like NATO, EU, UN or OSCE. In most cases, Parliament has to be informed in advance of the deployment of military forces. The exception to this rule is a threat to national territory; in this case prior notification is not mandatory. Prior notification is also not necessary when Special Forces are deployed on special operations. Before making the decision to use military force, several tools are used to inform the government. Of these tools, three important ones are:⁹

1. Risk and threat analysis, conducted by the Military Intelligence and Security Service.
2. The 2001 Frame of Reference for Decision Making for the Deployment of Military Units Abroad.

⁹Netherlands Defence Staff, 41.

3. The planning process for operations of the Defense Staff.

The Military Intelligence and Security Service focuses its research and analysis on (geographic) areas of interest for the government, and specified by the government. The Minister of Defense is political responsible for the functioning of this Service, and the director of the Service has the annual obligation of reporting to the Minister.¹⁰ The Service is subordinate to the Minister, not to the Commander of the Armed Forces, to whom the Service has a supporting role.

The 2001 Frame of Reference was established due to lessons learned from previous operations, and was especially triggered by the 1995 Peace Keeping operation in Srebrenica, Bosnia.¹¹ It is somewhat of a checklist, designed to assist the political body in addressing all matters of importance for the use of military force.

The planning process of the Defense Staff is the third of the important instruments in the national decision making process for military operations. The process used is NATO's Operational Planning Process.¹² One of the purposes of this planning process is to provide recommendations for the government from a military perspective. Within the Defense Staff the process is actually conducted by the Directorate of Operations. The Defense Staff is headed by the Commander of the Armed Forces, who is the primary military adviser of the government, and also responsible for the direction of forces during an operation. The subordinate Services are force providers, and in principle do not direct operations themselves. Some exceptions to this rule exist, like for instance the coast guard responsibilities for the Royal Navy and the airspace surveillance task for the Royal Air Force. Also, the police tasks of the Royal Military Police, a

¹⁰Website Netherlands Ministry of Defence. Available at: http://www.defensie.nl/mivd/sturing_en_controle/index.aspx. Accessed 20 February 2006

¹¹Letter of Ministry of Foreign Affairs and Defense to Parliament, 19 July 2001. Available at: http://www.defensie.nl/actueel/parlement/kamerbrieven/2001/3/190701_toetsingskader.aspx. Accessed 16 February 2006.

¹²Supreme Headquarters Allied Powers Europe, *Guidelines for Operational Planning*, Final Revision 1, (Mons, June 2005).

separate Service in the Netherlands, are not conducted under the control of the Commander of the Armed Forces.

The position of the Commander of the Armed Forces has only recently been established. In September 2005 the then Chief of Defense Staff assumed the role of the Commander of the Armed Forces. This was part of a major reorganization to reduce staffs and increase jointness.¹³ At the same time the position of Service Chiefs has been abolished. The senior officers in each of the Services are now known as the Operational Commanders of their Services. It is now the responsibility of the Commander of the Armed Forces to set and issue policy, and the responsibility of the Operational Commanders of the Services to execute it. This also means that the planning for operations is now solely the responsibility of the Commander of the Armed Forces.

The new position of the Commander of the Armed Forces also made the publication of the Netherlands Defence Doctrine necessary.¹⁴ Before this, only the Services issued their own Service related doctrine and no overarching joint publication was available. Before the publication of the Netherlands Defence Doctrine, NATO's Allied Joint Publications were earmarked as the doctrine to use when joint operations were to be conducted.¹⁵ NATO publications therefore provided the capstone documents for the Services, and they still do where the new Netherlands Defence Doctrine does not offer guidance. This is why NATO's Operational Planning Process is now the process used by the Defense Staff to conduct operational planning.

¹³Korthals, A. H. Reactie op het rapport van de Commissie Opperbevelschap (Reaction on the report by the committee on Supreme Command of the Armed Forces). October 2002. Available at: http://www.mindef.nl/actueel/parlement/kamerbrieven/2002/4/101002_opperbevelhebberschap.aspx. Accessed 16 February 2006.

¹⁴Netherlands Defence Staff.

¹⁵For instance: The German/Netherlands Corps also uses the NATO Operational Planning Process.

OPERATIONAL PLANNING

It is important to realize that the Commander of the Armed Forces' choice for NATO's Operational Planning Process is a very recent one. Since the Commander of the Armed Forces assumed his new role and responsibilities in September 2005, his focus has shifted from preparing units for missions in the old situation to preparing the mission itself in the new setting. This means a more pronounced role in planning the operation, something his previous planning process did not support.¹⁶ Momentarily the Operational Planning Process is being conducted for the first time to plan the new mission in Afghanistan, scheduled to start in March.¹⁷ As mentioned earlier, the Directorate of Operations is the organization in the Defense Staff charged by the Commander of the Armed Forces to plan and direct operations, and this Directorate has now therefore assumed the role of a permanent joint headquarters. The Directorate of Operations is organized as a NATO headquarters with a J1 through J9 structure. The position of the Directorate of Operations with respect to the Services and the Commander of the Armed Forces is represented by the diagram in figure 1.

As the diagram shows, the Directorate of Operations is part of the staff of the Commander of the Armed Forces (CAF). When the government has decided to use military force, the Commander of the Armed Forces directs the Services to provide the necessary forces. Which forces are needed is determined through the Operational Planning Process conducted by the Directorate of Operations.

¹⁶Chief of Defence Staff. Guideline 2: Planningsproces CDS voor (vredes)operaties. (CDS planning process for (peace) operations) The Hague: Defence Staff, August 2002.

¹⁷As part of Regional Command South, the Netherlands will deploy a task force to the province of Uruzgan.

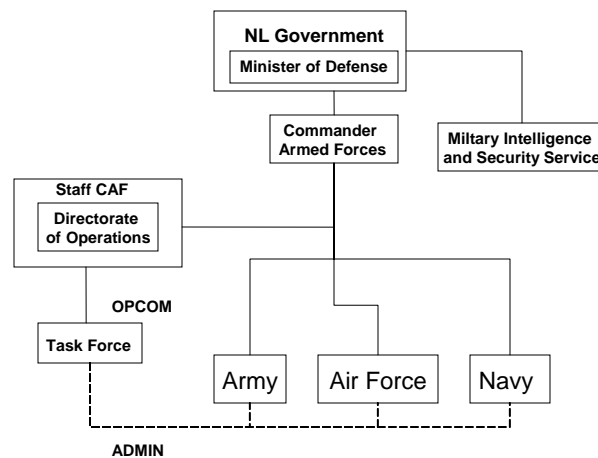


Figure 1. Organizational Chart Netherlands Defense Staff

These forces will be formed into a task force under operational command of this Directorate. The Services conduct the actual deployment, sustainment, and redeployment of their forces under the control of the Directorate of Operations. In the current situation the Directorate cannot operate solely as a military headquarters, since it is part of the staff of the Commander of the Armed Forces. It needs to devote therefore a significant amount of time to addressing political issues.

The Operational Planning Process is conducted in five phases, and the Services are involved in most of these phases to enable parallel planning. Only in the first phase no role for the Services officially exist. It goes without saying that the political process develops also parallel to this planning process, on some occasions feeding the process, on other deriving information of it to enable the political decision making. This is an important reason for the choice of this specific planning tool, since communication with the political body is one of the goals of this NATO

process¹⁸. Not all the details of the process will be discussed, the aim is to provide a basic understanding on how the Directorate of Operations is currently using the process.¹⁹ The five phases of the Operational Planning Process are:

Phase I:	Initiation
Phase II:	Orientation
Phase III:	Concept Development
Phase IV:	Plan Development
Phase V:	Plan Review

Phase I (Initiation) commences when a (possible) crisis is identified. This phase can be initiated by the government or through an own analysis of the Defense Staff, and mostly starts with the receipt of a planning instruction. As soon as possible an Operational Planning Group within the Directorate of Operations is formed, if necessary augmented with external planners. The aim of this phase is to construct a Strategic Military Assessment to provide input for a political assessment.

Phase II (Orientation) is basically a mission analysis. Input for this mission analysis is a mission directive from the Commander of the Armed Forces and a threat analysis made by the Military Intelligence and Security Service. This mission analysis is briefed to the Commander of the Armed Forces, who then briefs the Minister of Defense in order to attain political commitment to proceed the planning. If it turns out there is no political support for an operation, the process stops here. If initial political support does exist, the Commander of the Armed Forces issues further planning guidance based among other things on the Minister's feedback. At the end of this phase an initial warning order is issued to the Services to initiate force generation and

¹⁸Supreme Headquarters Allied Powers Europe, 4-1.

¹⁹Keij, 21 March 2006.

parallel planning. Also, at the end of this phase, the design for the operation is finalized based on the input from the political body and the Commander of the Armed Forces.²⁰

Phase III (Concept Development) starts with the planning guidance of the Commander of the Armed Forces constructed in the previous phase. The Operational Planning Group continues its analysis to explore the own possible courses of action. Courses of action are briefed to the Commander of the Armed Forces. Based on his choice and comments, a concept of operations is constructed as part of the overall plan. The concept of operations again is presented to the Commander of the Armed Forces for approval, after which the second warning order is issued to the Services in order to prepare the units. In this phase also the final go ahead for the mission has to be given by the government, which also might result in adjustments to the concept of operations.

Phase IV (Plan Development) is initiated based on government approval in the previous phase. In this phase the operation plan is made, based on the approved concept of operations. Also, in coordination with the Services, the deployment and sustainment plans are made in this phase. At the end of this phase the operations order is being issued to the unit commander charged with the execution of the operation. The Operational Planning Group builds the plan as the next higher level for the unit assigned to the operation. For instance, if the assigned unit for the operation is a battalion, a brigade operations order is issued to the battalion commander.

Phase V (Plan Review) This phase is intended to refine the plan if necessary, based on new developments. It is a continuous process during the planning, but also during the execution of the operation. The monitoring of the mission, together with the situation reports of the commander in the operations area, will provide the input for this possible review of the plan. This review can also lead to a changed organization of the unit in the area of operations. Finally, also the rotation plans are made in this phase.

²⁰Supreme Headquarters Allied Powers Europe, 4-2.

The Directorate of Operations, assigned by the Commander of the Armed Forces to plan and direct all missions of the Netherlands Armed Forces, is still exploring their new role.²¹ Part of this exploration is the need to develop an own appreciation of their new planning process. The new mission in Afghanistan will be a test case for the new situation and, based on an ongoing evaluation process, adjustments will be made accordingly. The new role of the Directorate of Operations is that of a Permanent Joint Head Quarter, and the coming period will clarify what challenges this presents.

ASSESSMENT

Military strategy is considered to be “the coordinated, systematic development and use of military means of power of a state or alliance to achieve the military elements of the objectives in the grand strategy.”²² In his recently issued defense doctrine, the Commander of the Armed Forces views himself as the military-strategic authority. Grand strategy, on the other hand, is the exclusive responsibility of a government, leaving the Commander of the Armed Forces in a purely advisory role.²³ The Operational Planning Process reflects this relationship. The responsibility of the Commander of the Armed Forces is therefore translating political guidance into a workable operations plan. Since the recent strengthening of his position, the Commander of the Armed Forces is exerting greater influence on the planning of the upcoming mission for the Netherlands Armed Forces in Afghanistan (starting March 2006).²⁴ For previous operations only guidance was given by the Commander of the Armed Forces (then the Chief of the Defense Staff). Now a complete operations plan is constructed, and an order brief is presented to the assigned commander. The Services have retained influence on this operations plan through regular planning meetings, but are not making the plan. The upcoming mission in Afghanistan is

²¹Keij, 21 March 2006.

²²Netherlands Defence Staff, 17.

²³Ibid.

²⁴Keij, 21 March 2006.

not the only operation conducted under the responsibility of the Commander of the Armed Forces. Currently, eight different missions are ongoing, one of these is the Dutch contribution to the ISAF mission in Afghanistan, which is now about to be expanded significantly with the mission in Southern Afghanistan.²⁵ Based on the previous description, a number of observations can be made in order to enhance the understanding of the current situation the Directorate of Operations is operating in.

The first observation is that the recently issued Netherlands Defence Doctrine does not reflect current reality. This doctrine publication specifies that at the operational level the plan for the operation or campaign is made, based on military strategic directives.²⁶ It further specifies that the Service doctrine is at the operational level, implying that the Services can operate at the operational level.²⁷ The Commander of the Armed Forces sees a clear distinction between the military strategic level and the operational level: “The operational commander, who will theoretically be situated in the area of operations, commands the formations and units assigned to him in order to carry out his own plan. . . . The military-strategic authority which leads the operation in or near the area of operations, allocates targets and equipment and, in consultation with the politicians, imposes restrictions on the deployment thereof, without getting involved in the finer details of implementation.”²⁸ In the new situation the Defense Staff (through the Directorate of Operations) has assumed the role of operational level planner for the Armed Forces, and the Services have lost this role. This means that the Defense Staff now is the military-strategic as well as the operational level authority. The Netherlands Defence Doctrine needs to reflect this changed relationship.

²⁵Website NL Ministry of Defense, 20 Feb 2006.

²⁶Netherlands Defence Staff, 18.

²⁷Ibid., 9.

²⁸Ibid., 18.

The second observation concerns span of control. As mentioned earlier, eight missions are currently conducted under the responsibility of the Commander of the Armed Forces by the Directorate of Operations, situated in the Hague. The missions are geographically dispersed in the Middle-East, Africa and the Balkans and not connected through an overall campaign plan, making it difficult for one headquarters to control these eight operations. Therefore, much of the actual execution is mandated to the commander in the area of operations. This is in congruence with the earlier mentioned guiding principle for command and control of the Dutch Armed Forces: mission command. This guiding principle offers the commanders in the operations area the freedom of altering their course of action if the situation changes, as long as they meet the objectives set by the military-strategic authority, or in the new situation by the Directorate of Operations on behalf of the Commander of the Armed Forces. The Commander of the Armed Forces states this clearly in his doctrine publication: “commanders at all levels must, therefore, be allowed to decide for themselves how best to conduct their mission.”²⁹ At this moment it is still unclear if the Directorate of Operations has enough capacity and capabilities to plan and subsequently direct all the operations of the Netherlands Armed Forces in their new role of a permanent joint headquarters. Based on the evaluation of the new mission, a reconsideration of their responsibilities might be necessary.

A third observation is based on the initial experiences with the new situation and is related to political involvement. Since the Directorate of Operations is the headquarters planning the operation, all the questions related to the operation will be directed to them. They are the subject matter experts, and no filter exists to shield them from questions from the political body. The Commander of the Armed Forces is of course their direct commander, but he has limited personal involvement in the process, he will therefore have to refer to the Directorate for answers. This situation is perceived as a major impediment for a smooth planning process. Requests for

²⁹Ibid., 89.

briefings delay the process significantly due to the time necessary to translate the status of the process into an understandable brief, and of course due to the brief itself. The Directorate of Operations feels it lacks the time and capacity to accommodate the unpredictable information requirements by the political body and to assure a swift planning process at the same time.³⁰ Very detailed answers are often required to address the often equally detailed requests for information by the political body. This is largely due to a lack of understanding of military affairs and military command and control relationships on behalf of the politicians. It is much easier to understand how many patrols are being conducted daily than it is to comprehend the responsibilities inherent in mission command. An operational level headquarters is not (or better: should not be) interested in details of the execution. The Directorate of Operations is now forced in this position of needing to know these details, in part because of media pressure on politicians. Besides the interruption of the planning process through the aforementioned situation, the Directorate also still has retained its other tasks in support of the Ministry of Defense and the Commander of the Armed Forces. It is obvious that these other tasks require time and effort, which cannot be dedicated to the planning process. Political involvement in military affairs will remain prominent, therefore the way to address this situation is probably an enhancement of the Directorate's capabilities, in combination with improving the understanding of military affairs of the political body. The Directorate has to be proactive in this respect, and offer the opportunity for a better understanding. Many questions can be obviated this way, thereby creating time for planning.

The fourth observation concerns the personnel situation of the Directorate of Operations. There is a perceived lack of capacity and experience at the operational level to comfortably settle into the new position of permanent joint headquarter.³¹ In new, uncertain situations, some planners refer back to their comfort zones, which rarely is the operational level. This sometimes

³⁰Keij, 21 March 2006.

³¹Ibid.

results in too detailed planning for an operational level headquarters, limiting the possibilities of the executing commander. The Netherlands Armed Forces have a limited amount of officers skilled at operational level planning. Due to the size of the previous missions conducted by the Armed Forces (rarely above battalion level), no real need existed for this level of planning. The only officers that acquired the necessary experience were those assigned to the German/Netherlands Army Corps, and those working in NATO headquarters. Further complicating the acquirement of operational level planners was the personnel system, which required people to apply for positions, instead of being assigned by the personnel office. Units were therefore dependent on who applied for the job, creating a situation where not always the right person for the job was assigned. This is now changing, and much greater influence can now be exerted by the personnel office in job assignment. The new and essential role of the Directorate of Operations requires staff officers with specific skill sets. Personnel possessing the required experience and knowledge need to be handpicked and assigned to the Directorate to assure the quality of planning necessary to conduct joint operations.

The final and arguably the most crucial observation deals with the planning process itself. The Operational Planning Process is a systematic approach to planning, working its way to a final plan through sequential phases. Products from one phase are used and necessary to start the next phase. Although the Operational Planning Process specifies an operational design as one of the products of phase two (Orientation), it does not specify how to get to this design.³² It is apparently assumed that the design will present itself after the completion of the mission analysis conducted in phase two. The Operational Planning Process uses operational design concepts and tools like end states, centers of gravity, decisive points, lines of operation and so on to express this design.³³ These operational design concepts and tools are quite similar to the Elements of

³²Supreme Headquarters Allied Powers Europe, 4-2.

³³Ibid., 3-5 – 3-17.

Operational Design used by the U.S. military.³⁴ But again, no guidance is given on how to obtain this design. The experience and knowledge of the planners using the process will have to compensate for this lacuna in the process. As aforementioned, experience and knowledge at the operational level is however limited in the Directorate of Operations.

Concluding this assessment of the current situation, it is important to realize that the Directorate of Operations has only recently been given their new responsibilities. They are in a complex situation, because they not only have to establish the boundaries of their role in the new situation, but they also have to do this while planning a new mission and managing ongoing operations. In order to fulfill their new role as the operational planner for the Armed Forces, the Directorate has made the logical choice of selecting NATO's Operational Planning Process as their tool. This planning process and the elements used to express the outcome of this process are originally based on state versus state, force on force warfare. However, today's operating environment is more complex, the range of possible adversaries and conflicts is larger and less predictable than ever before.³⁵ As a NATO-member, the choice for NATO's Operational Planning Process is obvious, but questioning the relevance of the process in light of the changed environment also has merit. The scientific community has embraced systems theory as the preferred way of dealing with complexity, this is probably also the direction in which the military should look for improvements in their theoretical base.

The Directorate of Operations is facing many challenges, but providing the best plan possible is of course their main concern. Some of their challenges are out of the Directorate's sphere of control, but others can be addressed. Although the Operational Planning Process itself is currently not criticized by the Directorate of Operations, improving this planning process is one

³⁴United States Joint Chiefs of Staff. *JP 5-0 Joint Operation Planning, Revision Third Draft*. (Washington D.C., 10 August 2005), IV-6.

³⁵Supreme Headquarters Allied Powers Europe. *Guidelines for Operational Planning*. Final Revision 1. (Mons, June 2005) 1-1 & United States Joint Chiefs of Staff. *JP 1 Joint Warfare of the Armed Forces of the United States*. Washington D.C., 14 November 2000, vii.

of the challenges within reach. A way of achieving improvement is through a different approach for constructing the design for an operation. This different approach will be discussed in the next chapter.

CHAPTER THREE

SYSTEMIC OPERATIONAL DESIGN

This chapter will focus on the Systemic Operational Design process. First a brief overview of the background will be delivered, in which the events that led to the development of this process and the theoretical base of the process will be addressed. A general description of the process follows, including the intended use of the process. Third, the process itself will be explained, focusing on the several steps of the process. Finally, an assessment will be given on the value and usability of Systemic Operational Design with regards to the Dutch use of NATO's Operational Planning Process.

BACKGROUND

Systemic Operational Design as a process was developed in Israel in the 1990s by its chief proponent, Brigadier General Shimon Naveh. The Israeli Defense Force started realizing something was wrong at their operational level after their stunning tactical victory over the Egyptian Armed Forces in 1973, which later turned out to be a strategic defeat. Although the Israeli Defense Forces showed tactical excellence in this war, there was no clear understanding of the consequences at the operational level. The search for a solution for this problem was stimulated by the rediscovery of operational art in the United States in the 1980s (after being “invented” first in the Soviet Union in the 1920s and 1930s, or according to some in the American Civil War by Grant).³⁶³⁷ As Naveh argues: “The development of operational art, as a

³⁶Naveh, Chapter 5.

neoteric field of knowledge, provided, both in the Russian and American cases, for the first time in the history of modern military thought, an intermediate environment for discourse, which bridges harmoniously over the traditional cognitive-conceptual gap between the conventional fields of military knowledge. Thus facilitating a coherent accomplishment of strategic objectives through the operation of tactical resources.”³⁸ The Israeli Defense Forces started to conduct seminars at general officers level to promote cultural change in the military and to experiment with new ideas and tools. The Israeli Chief of Defense Staff proceeded to institute a school for advanced operational studies, now known as the Operational Theory Research Institute (OTRI). Also the School for Operational Command was instituted, intended to promote creative and critical thinking at the operational level among its (military) students, and as a consequence in the Israeli Defense Force. These efforts contributed to the development and refinement of the Systemic Operational Design Process as it exists today. Although the Israeli Defense Forces were closely involved, Systemic Operational Design is currently not the generally accepted method of design in the military. Commanders are free to use the process.

NATO’s Operational Planning Process is based on a theory of warfare of almost two centuries ago. Clausewitz’s ideas, supplemented by some of Jomini’s, have more or less dominated Western military thought up to the present day. Although modifications have been made through the years, the theoretical basis for the current view on operational art and campaign design is still basically that of Clausewitz, even though he himself never mentioned the operational level. Systemic Operational Design is an approach to campaign design using a different theoretical background. Systems theory, on which Systemic Operational Design is

³⁷James J. Schneider, *The Theory of Operational Art*, (Ft. Leavenworth: Command and General Staff College, 1988), 15.

³⁸Shimon Naveh. Lecture. Available at: <http://home.no.net/tacops/Taktikk/Kadettarbeid/naveh.htm>, accessed 15 February 2006, 2.

based, has been first introduced by Ludwig von Bertalanffy in 1945.³⁹ Although systems theory by now has pervaded the sciences, the military realm is still struggling to create a cohesive theory, capable of addressing the current complex global environment.

It is conceivable that the world has always been complex, and that we simply did not realize it. Modern communication and computer systems might have only opened our eyes to something already there. There is definitely some truth to this observation, but at the same time it is also hard to ignore the incredible increases in interconnectedness, speed of communication across the globe, and technological innovations. The sheer speed of developments creates not only more opportunities, but at the same time also more uncertainties, leading to at least a perception of greater complexity. Systems theory can provide the framework for addressing and for the creation of an understanding of this complexity. A useful framework is provided by Robert Axelrod and Michael D. Cohen with their description of Complex Adaptive Systems.⁴⁰ They offer a set of elements that make up a Complex Adaptive System and suggest applying them to new situations⁴¹. They also offer a series of questions to determine the meaning of these elements in a specific setting in order to gain a better understanding.⁴² These questions are very similar to some of the questions used by Naveh in his Systemic Operational Design Process. The importance of these questions will be addressed when the process is discussed in more detail.

Although Systemic Operational Design has its roots in systems theory, it has also a philosophical background. It acknowledges that people act for reasons, rather than being caused to act. This is in sharp contrast with the Effects Based Approach to Campaign Design, where

³⁹Ludwig von Bertalanffy, *General System Theory: Foundations, Development, Applications*, 11th Printing, (New York: George Braziller, Inc, 1993), viii.

⁴⁰Robert Axelrod and Michael D. Cohen, *Harnessing Complexity: Organizational Implications of a Scientific Frontier*, (New York: Basic Books, 2000), 154.

⁴¹*Ibid.*, 152-153.

⁴²*Ibid.*, 154-155.

causation is also imposed on human behavior, creating false chains of cause and effects.⁴³ As Dr. Challans, philosophy teacher at SAMS, states in his argument against the Effects Based Approach: “Within the effects-based approach, the military is attempting to cause effects outside the realm of the physical world; they are trying to bring effects about in the realm of human activity. Causation is not the proper concept when dealing with human activity.” He suggests using action theory as a more appropriate theory for dealing with human behavior: “people act for reasons, not causes.”⁴⁴ Action theory addresses the difference between “mere” behavior and action. “Mere behavior includes what happens inside our bodies, such as the beating of our hearts, the reflexive withdrawal from painful stimuli, or the opening and closing of the eye’s iris. Action differs from mere behavior. It is what we do as opposed to what happens to our bodies.”⁴⁵ Personal desires and beliefs are guiding the actions people take. People do things, because they believe the action is appropriate and rational, according to their desires and beliefs.⁴⁶ One could argue that, as far as the human dimension is concerned, the Effects Based Approach limits itself to human behavior, while Systemic Operational Design incorporates human action.

Systemic Operational Design has furthermore embraced Chinese thinking in its intellectual basis. Comparing Western thought with Chinese thought clearly provided Naveh with additional insights on how to structure his process. Chinese thinking is not centered on action as the way to reach a certain goal, like Western thinking has taught us since Greek Antiquity. In the Western world we always have focused on creating an ideal model, and then visualizing how the real situation differs from this model. We then use backward planning to construct a sequence of

⁴³Joint Warfighting Center, *Pamphlet 4: Doctrinal Implications of Operational Net Assessment* (ONA, (Norfolk: United States Joint Forces Command, 24 February, 2004).

⁴⁴Tim Challans, *Emerging Doctrine and the Ethics of Warfare*, (Available at: <http://usafa.af.mil/jscope/jscope06/challans06>, 2.

⁴⁵Alexander Rosenberg, *Philosophy of Social Science*, (Boulder: Westview Press, 1995), 28.

⁴⁶*Ibid.*, 33.

actions as the way to make our ideal model happen.⁴⁷ The Chinese way of thinking focuses, quite differently, on the inherent potential of a situation. The idea is to identify the potential in a situation, and subsequently facilitate the emergence of this potential.⁴⁸ This means that instead of forcing your will upon a situation, you now focus on setting the conditions to allow the things to happen that are already inherent in the perceived situation. In the Chinese way of thinking there is not much value in a detailed, systematically developed plan aiming for a predetermined goal (the “end state” approach of Western militaries). As philosopher and sinologist Jullien explains: “In short, there is no foreseen outcome, perfect in itself, to dictate the way of proceeding and guide us on our way.”⁴⁹ Based on these insights, a Chinese general would exert himself in trying to establish a thorough understanding of the situation he is confronting in order to identify which conditions would facilitate a favorable change in the situation. This quest for understanding is also one of the key components of Systemic Operational Design.

Another relevant theoretical source of the process can be found in the work of Peter Checkland.⁵⁰ He devised “a methodology intended to bring about improvement in areas of social concern by activating in the people involved in the situation a learning cycle which ideally is never-ending.”⁵¹ This methodology is called Soft Systems Methodology. His methodology is a structured way of thinking in which not only a perceived problematic situation involving people is addressed, but also how to think about this specific situation. Meta-questions are therefore important in this approach. Many similarities exist between Systemic Operational Design and Soft Systems Methodology, their epistemology is related. Furthermore, they both have seven stages (steps in the case of Systemic Operational Design) in the process which are to be used

⁴⁷François Jullien, *Treatise on Efficacy: Between western and Chinese Thinking*, (Hawai'i: University of Hawai'i Press, 2004), 34

⁴⁸*Ibid.*, 20.

⁴⁹*Ibid.*, 33.

⁵⁰Peter Checkland and Jim Scholes, *Soft Systems Methodology in Action*, (Chichester: John Wiley & Sons, Ltd, 2005).

⁵¹*Ibid.*, 28.

flexibly, not necessarily in sequence. Both are clearly “an organized use of systems ideas in a methodology for learning one’s way to purposeful action to improve a problem situation.”⁵²

Naveh has skillfully combined all these theoretical underpinnings and translated them into an approach for military use.

GENERAL DESCRIPTION

Systemic Operational Design is intended as a tool for a commander at the operational level. It intends to translate strategic directives into a design for the operational level. This is achieved through a holistic, systemic view of the world. Based on an initial understanding of a system, a design for an operation is made, which is then translated into a plan for the operation. Execution of the operation introduces energy into the system in order to transform the system to an acceptable form for the strategic sponsor, that is, the political body. Energy in this context is not just kinetic (military) energy, but energy across the entire range of possibilities available to a strategic sponsor. The operational commander who uses Systemic Operational Design seeks to induce a systemic shock to the system. The notion of systemic shock can be compared to the idea of operational shock (“udar”), or system disruption, introduced by Tukhachevskii.⁵³ In order to find the right place where to achieve this systemic shock, the designer will carefully look for tensions in the system. Tensions are basically unresolved issues, and occur where several forces are exerting influence to gain the upper hand. For example, tensions can exist in relationships between agents in the system or they can exist within an agent due to conflicting interests. It is through exploitation of these tensions that the designer is trying to induce systemic shock. He will most likely not succeed through one operation, due to an unavoidable lack of understanding in the early stages of a campaign. It is therefore also an iterative process, intended to be repeated every time a significant and relevant emergence in the system at hand has manifested itself. This

⁵²Ibid., 284.

⁵³Naveh, 11.

emergence is used to further enhance the understanding of the system, in other words, to learn about the system. The emergence is subsequently further exploited. In this way, ensuing operations can be directed in a continually more focused fashion. A continuous cycle of understanding, designing, planning, acting, and learning (leading to better understanding) develops in this way. This cycle is best represented by an adaptation of the familiar OODA-loop (Orientation, Observation, Decision, Action) to an OODA-spiral.⁵⁴ A spiral better represents the fact that learning increases, and that one never confronts the same situation twice.

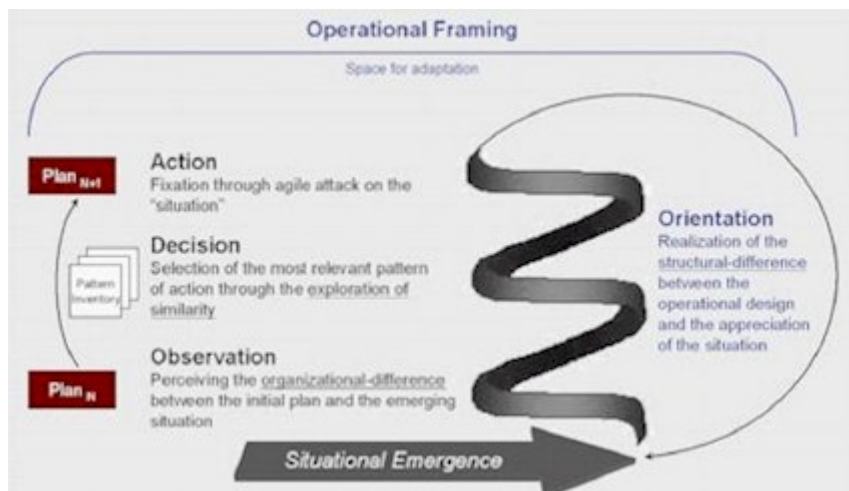


Figure 2. OODA Spiral Operational Theory Research Institute (OTRI)

In Systemic Operational Design, design is separated from planning because Naveh sees a major cognitive difference between the two. He tries to clarify this in several comparisons between design and planning.⁵⁵ Some of these are: design deals with learning, while planning is about action; design is a referential framework for redesign, while planning is a framework for action; design addresses problem setting, while planning deals with problem solving; design creates new patterns, while planning uses existing templates; design is holistic but incomplete and not detailed, while planning is complete but partial; design is an open construct, while planning is

⁵⁴Shimon Naveh, interviewed by author, Ft Leavenworth, Kansas, 14 March 2006. OODA spiral by OTRI.

⁵⁵Shimon Naveh, interviewed by author, Ft Leavenworth, Kansas, 24 January 2006.

a closed one. With these comparisons, Naveh tries to point out the importance of the creative element in design. Also, in Systemic Operational Design it is not assumed that the given strategic directives are absolutes, as opposed to planning where the mission is a given. This means that the designer can enter in a discourse with his strategic sponsor if the achieved understanding forces the designer to do so. The matter of discourse will be discussed in more detail, when the process itself is addressed. The designer will eventually achieve a far greater understanding of the strategic problem than his strategic sponsor. He therefore needs the discourse with the sponsor to elucidate the possible necessity of changed strategic objectives. The planner “merely” makes the tactical translation to an executable plan for the operation based on the design handed to him by the designer. He does not need this relationship with the strategic sponsor. A metaphor used by Naveh to explain these relationships is the story about the city council wanting to start a housing project.⁵⁶ The city council only has general ideas and broad objectives, they need an architect to design their housing project. Based on the guidance he has been given (strategic directives), the architect starts to work on a design for the project. He has to take more things into account than just the buildings in the project. He has to consider the context of the project. In line with other projects the city council has sponsored, he has to consider aspects like environmental issues, energy saving concerns, requirements related to the overall appearance and so on. He probably will have to make compromises, or he might discover that some of the city council’s initial ideas are irreconcilable. This compels the architect to engage in a discourse with the city council to propose and discuss other suggestions. When finally a satisfactory design has been made, the architect hands his design over to the engineer, tasked with the planning of the execution of the project. He is the one responsible for translating the architect’s design into a sound building plan, capable of being carried out by the craftsmen. Between the architect and the engineer a discourse also has to take place to ensure a thorough understanding of the overall idea behind the project.

⁵⁶Ibid.

The similarities with the military realm are obvious: the city council is of course the strategic sponsor (the government in most cases); the architect is the “operational artist,” responsible for the design; the engineer is the planner, who finally has to build the plan for the operation. Also similar is the fact that every design is unique, because at the level of the designer the situation is always new. At the military operational level every problem situation is new, as opposed to the tactical level, where basically the problem situation is a variation on a known theme.⁵⁷ A significant difference with the metaphor is that the “military architect” has also once been a “craftsman”: the operational level designer has been a tactical war fighter, providing him with a better frame of reference than an civilian architect probably ever will have.

Systemic Operational Design makes good use of this frame of reference: it considers the commander to be the driving force behind the whole process. The commander does not hand the process over to his staff, but he is the main player in it. He guides his design team (who ever he chooses to be part of it) through the discourses and participates in the intellectual process of creating understanding. The active participation of the commander is an essential aspect of Systemic Operational Design.

THE PROCESS

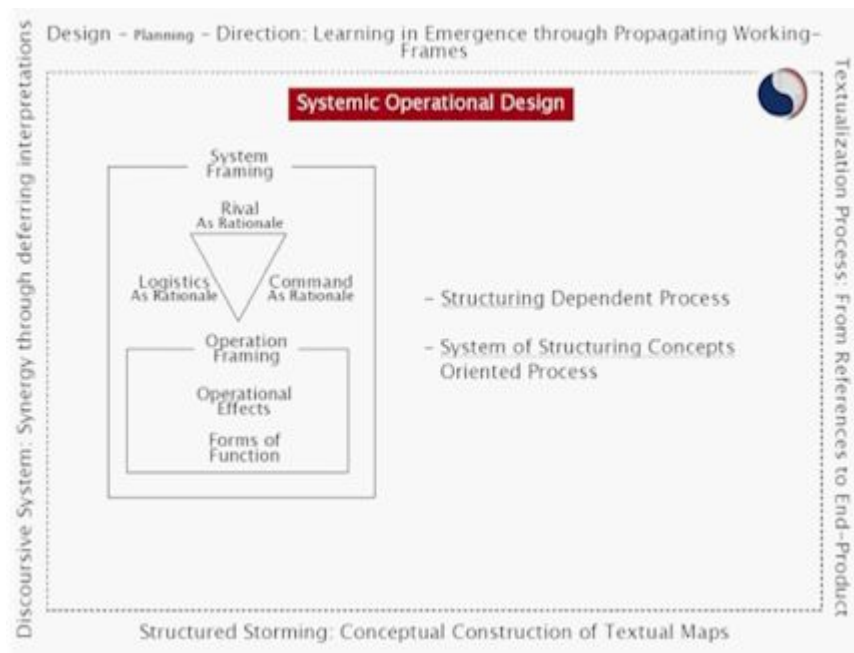
The process itself consists of two main components: system framing and operation framing. Both components are made up of several steps of structured discourse. Discourse is of crucial importance to the process. Discourse is not discussion, it is an exchange of ideas, a suspension of assumptions, an egalitarian dialogue, intended to gain a better understanding of the issue under consideration. Discourse is similar to dialogue and is “a free-flowing of meaning through a group, allowing the group to discover insights not attainable individually.”⁵⁸ This is,

⁵⁷Ibid.

⁵⁸Peter M. Senge, *The Fifth Discipline: The Art & Practice of the Learning Organization*, (New York: Doubleday, 1990), 10.

however, easier said than done, since real dialogue is something that is hardly practiced anymore in our modern societies.⁵⁹ Dialogue, or discourse, has to be learned and practiced to be useful.

Although the process follows a logical flow from diverging to converging, where each step is used to inform the follow-on steps, the process is not intended as a strict manual. It might be necessary to go back to a previous step when insights gained during a discourse changes the earlier initial conclusions. Key to the whole process is the aspect of learning due to the realization that one can never understand the system completely. This is compounded by the fact that everything is constantly in flux. A situation, or rather our perception of it, is never permanent, but always just a temporary construct.⁶⁰ Systemic Operational Design is therefore a continuous quest for a better understanding of a system in order to facilitate a better focused operation at every iteration of the process. Finally, the process is not a technique, but a methodology. This means that whatever group is using the process will alter and adapt it to make it accommodate the specific group dynamics.⁶¹ Graphically, the process is depicted as follows:



⁵⁹Ibid., 239.

⁶⁰Dietrich Doerner, *The Logic of Failure*, (New York: Henry Holt and Company, 1996), 98.

⁶¹Checkland and Scholes, 285.

Figure 3. Systemic Operational Design Process (OTRI)

As the picture shows, the seven steps in the process are: ⁶²

1. System Framing
2. Rival as Rationale
3. Command as Rationale
4. Logistics as Rationale
5. Operation Framing
6. Operational Effects
7. Forms of Function

The first four steps, the first main component, are used to create an understanding of the system the user is dealing with. Steps five through seven focus on the operation itself, and together form the second main component. Every step consists of several sets of questions to guide the discourse on the step. These questions are not intended to be followed and answered one by one, but are meant to facilitate a discourse. Especially in the initial stages of the process, it is more important to identify the right questions to ask, than to immediately come up with answers. In general, the results of a step can often best be captured through conceptual maps, supported by a narrative. However this is not mandatory, the designers decide based on the specific situation how to capture their insights. Each of the steps will be briefly explained.

System Framing, the first step, is intended to rationalize the context of the problem area, indicated by the strategic directives. The problem itself might be addressed by the directives, but is probably vaguely stated, and should by no means be considered as a given. System Framing is the first step in creating the system; building the broad outlines in order to start framing the problem. An unfavorable change or trend in the situation has caused the strategic sponsor to issue

⁶²Shimon Naveh, "Questions of Operational Art" Handout Exercise Ft Leavenworth, 18-27 January 2006, 3.

the directives. By identifying the system and clarifying the relationships and intentions of the agents within the system, the designers intend to locate or at least narrow down the problem area responsible for the unwanted change or trend. Relevant agents and relationships are incorporated into the system, in order to get a broad understanding of the system and its context. It is important to realize that the system under consideration is “created” by the designers, it is their perception of reality. Based on the directives given by the strategic sponsor, the designers build the system they want to transform. The system therefore is not a given, but a mental construct. To guide the discourse on System Framing, five sets of questions are suggested in this step in order to explore the cognitive area under investigation. The sets of questions are not meant to be sequential. Each of the sets of questions consists of multiple sub questions. The designers seek understanding through answering questions like: (1) What has changed that compels the process to be started? (2) What are the determining factors of the change and what could be possible implications of the change? (3) What are the various agents in the system, including their strategies and relations? (4) What is the desired direction of the system, and (5) What is the potential inherent in the situation? At the end of the step, one has to clarify whatever might hamper the ability to learn about the system. Concluding this initial step, the designers will have an initial understanding of the system they are dealing with, or better: want to deal with, since they have created the system themselves. This understanding can be visualized by a map, depicting the system as a collection of agents, connected by relationships.

Rival as Rationale is the second step in the process, and zooms in on the initial identified problem. This step is arguably the most crucial one, since failure to define the right problem is often the reason for overall failure.⁶³ The Rival in this case does not need to be an entity, therefore, this step needs to be addressed from a broad perspective, without the urge to zoom in

⁶³Jamshid Gharajedaghi, *Systems Thinking: Managing Chaos and Complexity*, (Boston: Butterworth Heinemann, 1999), 114.

on a specific actor. The Rival can very well be a certain set of conditions that need to be changed. Here again the step is subdivided in sets of questions, each addressing a different aspect of the Rival. The problem space is exhausted by questions like: (1) What are our own limitations (cultural differences, biases, prejudices and so on) that might impair proper understanding of the Rival? (2) What are the cultural peculiarities in the Rival System? (3) What are the economical characteristics of the Rival system? (4) How is the social system of the Rival organized? (5) How is the Rival's strategy determined? (6) How is the Rival's command and control organized? (7) How does the Rival learn? (8) What are preferred modes of operation of the Rival? and (9) How can the Rival resist our actions? Each of these questions are asked to provide insights in how it might affect the behavior of the Rival in order to better anticipate and understand actions (and non-actions) by the Rival. This step also seeks to identify tensions in the Rival system that might be exploited. As has already been mentioned: it is important to keep a broad perspective especially in the initial stages of the process. It is often tempting to quickly focus on a specific agent in the system and identify this agent as the Rival. But the Rival can be more than an entity, the real problem can have multiple forms. It is therefore essential to suspend judgment until thorough understanding has been achieved. At the end of Rival as Rationale, the designers have zoomed in from the initial system to the Rival system. A useful and practical method of depicting their understanding is again through a cognitive map, visualizing the relationships and agents within the Rival system.

The third step in Systemic Operational Design is Command as Rationale and takes a careful look at the friendly command structure in relation to the problem at hand. It examines whether existing command structures can effectively address the changed situation, or if modifications have to be made. Systemic Operational Design presumes that every situation is unique, and that bolt-on solutions are probably not the optimum way of addressing this

uniqueness. The context is always important when considering a certain measure.⁶⁴ A tailor-made answer to the problem might therefore also require an adaptation of the existing command structure, in order to negate the possible tension that might exist between the current command structure and the preferred one. This step attempts to clarify this by discussing questions such as: (1) Are we the right people to address this situation? (2) What are the weak links in the existing command structure based on the insights gained in System Framing? (3) Is the existing command structure effectively connected to relevant (with regard to this Rival) friendly partners (interagency, coalition, strategic sponsor and so on)? (4) Is the current command system structured to learn about the Rival? (5) Does the information flow need adjustments? (6) Are existing concepts and current doctrine sufficient to effectively address the Rival? and (7) What relevant limitations are imposed upon us by our command structure? The questions are meant to identify weaknesses in the friendly command structure in relation to the Rival and to present options to rectify these weaknesses. Visualizing the results from Command as Rationale, the designers can use familiar options like wire diagrams, but also visualizations like a cognitive map overlaid on a geographical map are useful.

Logistics as Rationale is the fourth step in the process and the final one of the first main component of System Framing. This step is concerned with identifying what the logistical possibilities and limitations are and how to manipulate these in order to achieve an effective logistical system. It addresses issues related to mobilization, deployability and sustainment, but does not limit itself to purely military resources. It is concerned with all relevant and available sources of potential energy that might prove valuable in addressing the Rival. Possible questions to explore the logistical issues are: (1) Where are our current sources of energy stored (already designated, including coalition, interagency and so on), and when can they be available? (2) What other sources of energy might be useful, and how can we obtain or use them? (3) How do our

⁶⁴Doerner, 95.

current logistical processes limit our ability to address and learn about the Rival? (4) What space and infrastructure is probably necessary to achieve our aims, and what part of this is crucial to the Rival? Results from Logistics as Rationale can also be visualized like Command as Rationale, using a cognitive map overlaid on a geographical map.

This step concludes the first main component, and the results of these first four steps are used to explore the operation itself. During the whole process a narrative is build to support the graphical depictions of the results of the discourses. This narrative is continuously updated and adjusted if new insights emerge from the discourse in a specific step. This approach is continued in the second main component, dealing with the actual operation.

The second main component starts with step five of the process: Operation Framing. The purpose of Operation Framing is to narrow the focus on the operation itself and to provide the key ideas on how to conduct the operation. The operation is the first in a still unknown series of operations eventually leading to a state of the system the strategic sponsor finds satisfactory. Therefore this step has a shorter term focus, intermediate goals have to be set, defined as the end state for the operation. It is important to realize that this is not the end state of the overall campaign, since this is not clear yet. In Systemic Operational Design, the designer is not concerned with a clearly defined overall end state. The reason is obvious and one of the important characterizing aspects of the process (and of systems theory): every time one inserts energy (in whatever form) into the system, the system will change, and possibly also change its course. This means that after every insertion of energy there has to be a re-evaluation of the situation, assessing if the system is changing or moving in a direction we find acceptable. Thus, in this step the designer converges on the intermediate end state, that of the first operation. At this stage it is important not to think in a linear, sequential fashion as in line of operation with subsequent decisive points. The aim is to explore the areas of logic within the Rival system that need to be addressed in order to change the system in a favorable way. This exploration will lead to a set of

conditions the team believes need to be met in order to allow the transformation of the system. To guide the discourse on the areas of interest for Operation Framing, the following questions can be a starting point: (1) What are the positions of the relevant international players towards our operation? (2) What set of conditions have to be attained to assure the intended end state? (3) Where and when do these conditions have to be attained? (4) Which space is necessary to conduct the operation, and which space is essential for the Rival? (5) How does time affect the operation, does the Rival have a different perspective of time than us? (6) How can the Rival affect our capability to learn from this operation? and (7) Which methods of maneuver are relevant in inducing systemic shock to the Rival system? Here the results can be captured using a narrative, supported by a preliminary sketch on a geographical map. Preliminary, since only rough outlines of the operation might present itself at this stage.

The sixth step of Systemic Operational Design is called Operational Effects and converges even more on the actual operation. By now it is starting to become clearer what knowledge gaps exist that impair our understanding of the Rival. These knowledge gaps have to be filled in order to be better equipped for a possible subsequent operation. Therefore, the operation has to be designed to provide answers for the (most salient) knowledge gaps. If the understanding of the Rival improves, so will the focus of the operations be more and more on target. The operations are a way of provoking a reaction from the system, because “like atoms under excitation and organisms under changing conditions, social structures adjust and adapt, maintaining themselves in a dynamic steady-state rather than in one of inert equilibrium.”⁶⁵ This means that the system we are trying to influence will respond to a (forced) influx of energy; it is this response that will teach us more about the system itself. To identify how the designers want to affect the system, that is, what effects do they want to accomplish, questions to guide the

⁶⁵Ervin Laszlo, *The Systems View of the World: A Holistic Vision for Our Time*, (Cresskill: Hampton Press Inc., 2002), 38-39.

discourse in this step can be: (1) What trends in the Rival system are most likely to be susceptible to correction? (2) Which of the earlier identified tensions in the Rival system are vulnerable to outside influence? (3) What (type of energy) can influence the key components in the Rival system? (4) Are there any relevant references to consider that can assist in constructing the operation? (5) How much time will the system need to show a visible reaction? (6) What could be a logical sequence of effects, and what should definitely not be done at this stage? (7) What lines of logic can be identified to address the Rival? and (8) How do effects along the possible lines of logic lead to the desired direction? The results of this step can be captured by using the familiar visualization of line of operation, supported by a narrative.

Although one has to do more than one thing when addressing problems in complex systems the designers have to be careful not to overcomplicate the operation.⁶⁶ It will be very difficult to discern what the reason was for a specific reaction if multiple actions are conducted simultaneously. Systemic Operational Design is also in this respect quite unlike the classic approach, where the aim often is to overload the enemy with problems, so he cannot react in a timely fashion, forcing him to surrender. Especially in the early stages of a campaign the systemic designers are more concerned with learning in order to figure out where and when to act, and not so much with finding a quick (kinetic) solution. Quick solution might very well prove counterproductive in the long run, because the system was not correctly understood. The wrong reactions might be induced, possibly creating a situation even less desirable than the initial one.

The final step in the second main component, and therefore the entire process, is Forms of Function. This is where the design has to enable the subsequent planning process. The products so far have shaped the commander's vision for the campaign and the first operation. He can therefore be specific about the course of action to his planners. Through discourse with the planners of the operation, this is explained in order to give the operation a more defined shape. It

⁶⁶Doerner, 198.

is essential at this stage that the planners have a clear understanding of the logic and reasoning behind the design. The designers use a compilation of the family of products produced during the process in the discourse with the planners to clarify this. If the designers cannot explain and answer all the topics brought to bear by the planners, the design team has to rethink some of its steps. This means they will go back to that part of the process that might help them address the planners' concerns. In this respect, the discourse with the planners is in fact a test of the design. If the planners have a clear understanding of what is required of them, they start translating the design into an executable plan. Although the planners need to build the directed course of action to a complete product, the design already has provided the idea behind it. From a planner's perspective, the design products place them in the middle of the course of action development of the planning process. Parallel to the design process they already have done much of the necessary additional data mining, based on interim information provided by the design team.

The designers will have to stay in close contact with the planners, because of the probable necessity of reframing (part of) the results, based on the outcome of the operation. Monitoring the system is therefore crucial. Careful thought has gone into determining the right aspects to watch, and when to expect reactions from the system. The designers are not interested in the action itself, but in the resulting emergence and its logic. This will give them insights whether their initial framing of the situation was correct or that reconsideration is necessary. Assessing the relevant information will determine the direction for possible follow-on operations.

ASSESSMENT

It is important to realize that Systemic Operational Design, as it is described above, is an Israeli construct. It is originally intended to solve the problems at the operational level of the Israeli Defense Forces, as it was perceived at the time. It is therefore tailored to address the

specific situation Israel finds itself in, and builds on the specifics of Israeli (military) culture.⁶⁷

Without paying attention to these circumstances it can be counterproductive if one merely copies the process, and uses it in one's own situation. Therefore, before assessing the process itself, the relevant specifics of the Israeli situation will be addressed.

First of all, Israel has been at war since it came into existence, this means it knows what the Rival is. It has a thorough understanding of the Rival's social, cultural, organizational and military specifics, because they are part of the same system. The Rival changes, but Israel knows from what form it is changing from: it has a knowledge base, and is always reframing as it were. This is completely different for the Netherlands Armed Forces, who nowadays can be deployed almost everywhere around the globe, promoting stability and the international rule of law.⁶⁸ Most of the time therefore, the Dutch Armed Forces have to start from a disadvantageous intelligence position when initiating a new mission.

Second, in the Israeli Defense Forces, operations have been conducted joint for years, creating a thorough understanding of the available friendly capabilities. Units have been operating together for years, creating an efficient and effective force. No coalitions have to be build or negotiations conducted to get things done. This means that Operation Framing can be done in a rapid fashion. Quick integrated responses are therefore possible. This is not the case in the Netherlands, where joint operations are still in its infancy.

Third, the atmosphere in the Israeli Defense Force is very informal, facilitating egalitarianism in discourses quite naturally. Commanders and planners therefore do not have to get used to discourse. Although the Netherlands Armed Forces also entertain an informal atmosphere, the level of egalitarianism required for real discourse might not be present at the appropriate level. Systemic Operational Design is intended for the operational level, which is the

⁶⁷Naveh, 24 January 2006.

⁶⁸Netherlands Defence Staff, 37.

Defense Staff in the Dutch setting, since the military strategic and operational level have been combined recently. The Defense Staff is a joint organization, but jointness in the Netherlands is still relatively recent. This can result in some cases that Service agenda's are more important than thinking joint, making real discourse difficult.

Fourth, in the Israeli Defense Force the designers are often also the planners, as well as the executioners. There is not a separate staff coming up with a design, which it then has to hand over to a tactical headquarter in order to make the plan. It is all done by the same headquarters. This has the great advantage that nothing gets lost in the translation of the design to the planners: the planners make the design, subsequently plan the operation and then conduct it.⁶⁹ This is also not the case in the Dutch situation, where the entire plan is made at Defense Staff level and then presented to the executing commander through an orders brief.

Last, but certainly not least is the fact that Israel has been in an existential struggle since its inception as a state. Strong political involvement in military operations is therefore a given. Many politicians are former generals of the Israeli Defense Force, making it easier to communicate and making it also easier to explain the necessity of a particular approach to an operation. In the Netherlands this existential struggle is of course no longer an issue, making the approach to military operations by politicians different. In the Dutch situation, the military is more considered an instrument of foreign policy than a guardian of the national integrity.

When assessing the process, a number of observations can be made, which will be discussed next. The observations are grouped according to subject. The first three are general observations, the second group of four are addressing requirements for Systemic Operational Design, and the final four observations concern the process itself.

First of all, Systemic Operational Design is a design process, not a planning process. Therefore comparing it with the Operational Planning Process is somewhat like comparing apples

⁶⁹Naveh, 24 January 2006.

and oranges. Both processes have different aims. Systemic Operational Design is intended to produce a design for an operation, whereas the Operational Planning Process is aiming to produce a plan for an operation. If a comparison is to be made, this has to be taken into account. Comparing the two processes can however shed additional light on the approach Systemic Operational Design is taking, therefore some comparing remarks will be made. Systemic Operational Design is concerned with synthesis; it focuses on the whole, because the whole is more than the sum of its parts; it focuses on understanding rather than trying to come up with a solution as soon as possible; it focuses on learning about the situation at hand, rather than forcing a change. The Operational Planning Process on the other hand is concerned with analysis; it focuses on components of the situation in an attempt to understand the whole; it is solution focused, aiming at the fixed, formatted products it is intended to produce; it is about enabling action.

The second general observation concerns the complete different focus of planning. It is not backward planning from a preconceived end state, as the Western tradition has been, but rather facilitating a transformation of the situation, more in line with Chinese thinking.⁷⁰⁷¹ This means seeking to identify the opportunities inherent in the situation for change in a favorable direction, and subsequently setting the conditions to make it come about and reinforce the development.⁷² There is therefore less focus on forcing the Rival system to conform to our wishes, for this is mostly a short term solution. This is easier to acknowledge for the Israeli politicians and generals, since they have long ago accepted that a solution for their situation will take time. The Kingdom of the Netherlands is in a different situation. Dutch units are usually deployed for a limited period of time, and results are therefore expected in a shorter time span. Even though the government without a doubt acknowledges the limited possibilities of a relative

⁷⁰Jullien, 33-34.

⁷¹Ibid., 22.

⁷²Ibid., 70.

short campaign, they will at the same time have to explain to the Dutch people what the intention of the operation is. Vague aims are difficult to “sell” and will obviously provoke opposition.

The third and final general observation is the question about applicability at other levels of operation. Systemic Operational design is intended for the operational level, where strategic direction is translated into tactical actions. Although discourse with the strategic sponsor is part of the process, no suggestion is made for use of the process (or aspects of it) at the strategic level. One reason for this might be the scope of problems at the strategic level, where more than just security issues are addressed. This means a chronic lack of time to deal with topics in detail, suggestions from subject matter experts (an operational commander for military or security issues) might well be the best approach. Also at the strategic level a continuous (power) struggle exists between different party agenda’s, making suspension of assumptions (an essential prerequisite for discourse) very difficult. At the tactical level the situation looks more promising. Although the mission is probably always a given at this level, more and more tactical commanders are required to think operationally. Also, the operational level is not really linked to a specific unit level anymore.⁷³ Especially in operations where civilian populations are prominent, tactical actions can have strategic implications. During an ongoing operation, time at the tactical level might not always allow a process like Systemic Operational design, but much could be done in preparation for an operation. There is no reason why a battalion commander should not enter in a discourse with his company commanders about the upcoming operation. The tactical commander’s discourse with his higher commander requires of course the same buy-in as an operational commander needs from his strategic sponsor. This aspect is more difficult at the tactical level, where missions or tasks are given, and arguably only the execution is open for “debate.”

⁷³Naveh, 13.

The next four observations address requirements for Systemic Operational Design. The first of these is that it is not just the military that has to adjust to the process, but also the political body. Discourse with the political sponsor is also an important aspect of the process: insights and understanding gained in the process might show the need for an adjustment of the strategic directive. Changing the directive is best done through discourse, explaining the rationale behind it. The strategic sponsor has to be receptive to a discourse with his military commanders possibly questioning the directive and suggesting alterations to it. Personalities and relationships are important in this situation. If the Dutch government decides it will support Systemic Operational Design it will have to give different strategic directives. The government needs to acknowledge that their directives are open for discourse with the Commander of the Armed Forces. A sharply defined end state unnecessarily restrains this military commander, who still has to assess the situation for its possibilities. This will undoubtedly be a major obstacle to take, since the military has been demanding clear end states from the government for years. However, this change is not a request for vagueness, but to underscore the importance of a common understanding of the direction to take. The Commander of the Armed Forces is the authority to explain the need for this alteration in the government's position, since he is in communication with the political body.

The second observation related to requirements is that for discourse to be successful, several conditions are necessary: it has to be practiced; assumptions have to be suspended; equal status of the participants is necessary during the discourse; and the presence of people who think differently is needed. All these conditions create a situation in which some commanders may feel uncomfortable. Discourse can give commanders the feeling that they are in a vulnerable position, and that they might lose authority because of it. It is difficult to escape hierarchy, making it

questionable if those in authority really want to “level” with subordinates.⁷⁴ Personalities are therefore vital to make this happen, especially of course the commander’s personality.

The third “requirement observation” is connected to this problem with discourse. At the operational level discourse also is also necessary with the strategic sponsor. In most cases this is a politician with limited military knowledge. This reveals another prerequisite for discourse: participants have to speak the same “language.” Military jargon is clearly not this language, but neither is a simplified version of it in order to make it easier to understand. Simplifying will only lead to loss of valuable information. Systemic Operational Design provides a solution to this problem through its epistemology. The “language” used in the design process is basically that of systems theory, which makes it much easier to communicate thought processes behind the design to the strategic sponsor. The high level of education of the members of the Dutch government will assure the possibility of a discourse using systems language.

The final observation concerned with requirements is that in order to be able to use this process, an understanding of systems theory is necessary. Because Systemic Operational Design is based on a different theoretical background, the user has to know this background in order to really understand the benefits of the process.⁷⁵ This leads to the use of “another language” during the process, one which probably will not be understood by people unfamiliar with the theoretical underpinnings of the process. This poses a problem when the design has to be transferred to a planning team with no knowledge of systems theory. The design has to be “translated” with possible losses of insight as a result. A way of overcoming this problem is of course education, but this requires an investment and buy-in from senior military leaders, who all have been educated using the familiar theorists. A review of the curriculum of the Netherlands Defense

⁷⁴Peter M. Senge, 245.

⁷⁵Naveh, 14 March 2006.

Institute, where all officer education from captain up is conducted, will expose possible shortcomings in this respect.

The last group of four observations deals with the process itself. The first of these is that the importance of the commander cannot be overstressed when discussing Systemic Operational Design. The process is intended to be commander-driven. The experience and position of the commander is crucial to success in this approach to design. His experience is important to provide reference, focus, and insights for the discourse, which will not only enrich the discourse, but also save valuable time. His position is vital, because he is the one involved in discourse with the strategic sponsor. This means that the commander has to make himself available: he cannot let the staff perform the process in isolation. The Commander of the Armed Forces in the Netherlands can of course not always completely manage his schedule by himself. He has political responsibilities towards the government driving his agenda. This will affect his level of involvement in a process. However, the importance of a well-considered design will have to result in a high prioritization of the design process.

The second observation related to the process itself is that one has to accept that a clear and narrowly defined end state cannot be given. End states are only relevant in Systemic Operational design when addressing an operation, not the entire campaign. A desired direction in which the Rival system has to be maneuvered is the preferred way to focus a campaign. Although the Israeli patrons of the process use the term end state when discussing operations, a better term in this context would be “waypoint,” to explain the nature of the operations on the path to an acceptable state of the Rival system. By using waypoints instead of end states, it will be clear that these intermediate goals are in fact steps on the way to something else (another waypoint). It also will show that it is not a straight path when using this analogy with GPS-navigation. All this could imply letting go some of the very familiar operational concepts and tools used in the

Operational Planning Process, or using them in a different way, which might be a hard thing to do.

The third observation on the process is the critical aspect of transitioning the design to the planners. Since the process is based on a different theoretical background than the familiar planning processes, the epistemology is also different. This most likely will result in a different language used by the designers, in turn posing problems in the hand-over to the planners. The design team will have to “translate” their products to make them accessible to others. As long as the planners are not educated in the same theoretical background, this is probably the only solution. An organization embracing Systemic Operational Design will have to educate their personnel in at least the basics of the theory or accept the risk that issues might get lost in the translation.

Related to the previous observation is the final observation, which addresses the use of the operational design concepts and tools for campaign design.⁷⁶ Systemic Operational Design does not talk about these elements, since the users of the process will devise their own way of expressing their thoughts. This is because Systemic Operational Design is a methodology and not a method: meta-questions have to be asked in order to attune the process to the specifics of the group. Although some of the operational design concepts and tools are very unlikely to be used in the process, since they are counter to systems theory, others can still have value in expressing a design. For instance, Center of Gravity is not used, since in a complex system involving human interaction it is extremely difficult to identify this. The same applies for an end state: a system does not have an end state, it will transform to a new, altered system due to influxes of energy. Other elements might be used, like lines of operation to express a direction where the designers think the system will or needs to go. Use of some of the classical elements, including an explanation on how they were interpreted, is a way of translating the design to the planners. But it

⁷⁶Supreme Headquarters Allied Powers Europe, 3-5 – 3-17.

is important to realize that the designers are free to choose their way of communicating the design, no strict set of elements have to be used. The preferences of the design team and the specifics of the problem situation guide this choice.

CONCLUSION

Although the process is relatively new, and has not yet proven itself outside of Israel, successes by Israeli Defense Forces using the process are promising. The evacuation of Jewish settlers from the Gaza strip in 2005, and the assault on the city of Nablus in 2002 show that Systemic Operational Design has potential.⁷⁷ Most prerequisites for implementation of Systemic Operational Design in the Dutch situation are either already present or only minimal changes have to be made. Systemic Operational Design seems therefore a viable option to improve the current situation with regards to operational level planning in the Netherlands. The next and final chapter will among other things address where this improvement might be obtained.

⁷⁷Naveh, 24 January 2006.

CHAPTER FOUR

FINAL REMARKS

This final chapter will first of all suggest the improvement for the Operational Planning Process as it is used by the Directorate of Operations, including some of the consequences. Finally, conclusions will be drawn from the topics discussed, and recommendations will be presented for the way ahead with regards to operational level planning in the Dutch Armed Forces.

INTEGRATING SYSTEMIC OPERATIONAL DESIGN

Systemic Operational Design cannot replace the Operational Planning Process. Both processes have different aims, as discussed earlier in chapter three. The Directorate of Operations needs an operations order at the end of their planning effort to hand out and brief the executing commander. Although the form of the products of Systemic Operational Design is dependent upon the users of the process, a operations order is not the aim of the process. The end result is a design for an operation, only the way to express this design varies with the preferences of the designers. In NATO's Operational Planning Process constructing a design for the operation is part of the process, it is considered fundamental to operational planning.⁷⁸ How to come up with this design, however, is not specified.

The notable benefits of Systemic Operational Design are its pronounced attention to achieving understanding; its focus on learning; its commander-centric approach; its different theoretical background; its use of discourse; and its inherent flexibility for its users. The challenges connected to this process are the difficulties in translating its products to people unfamiliar with the theoretical background; the prerequisites necessary for discourse; the need for “buy-in” of the higher level, and the driving presence of the commander. Preferably, a suggestion

⁷⁸Supreme Headquarters Allied Powers Europe, 3-6.

for improvement of the current planning process should incorporate most of the benefits, but also needs to address the challenges mentioned. There is less incentive to accept something new if its implementation creates a whole new set of problems.

Systemic Operational Design can improve the currently used Operational Planning Process by providing the design necessary to continue and complete the planning. In this way the lacuna in the Operational Planning Process of a dedicated approach to come up with a design for the final plan is addressed. In order to achieve this it has to be incorporated into the initial two phases of the process (Initiation and Orientation), since at the end of phase two of the Operational Planning Process, a design is one of the principal products.⁷⁹ Systemic Operational Design does not replace mission analysis, rather it complements it, and can focus it. Mission analysis will feed parts of the design process, and can derive guidance from it. Therefore, Systemic Operational Design should be a parallel effort to the initial two phases of the Operational Planning Process.

The three most significant positive effects of introducing this suggested approach are the following:

1. Discourse, the different theoretical base, the focus on learning, and commander's participation will create a better understanding of the problem situation.
2. This in turn will lead to a better design than an effort without the use of the Systemic Operational Design process.
3. Commander's participation will also ensure a more focused and directed effort, thereby making better use of the available time.

However, without addressing the aforementioned challenges these positive effects could be frustrated. The challenge of unfamiliarity with the theoretical background requires an educational effort on behalf of the personnel of the Directorate of Operations. But education of all staff officers will in turn solve the translation challenge, since it is very unlikely that additional

⁷⁹Ibid., 4-2.

staff personnel will be added to perform the design process. The Directorate of Operations will have to perform both processes, which means selecting a design team from its personnel. This design team will in the initial two phases of the Operational Planning Process conduct Systemic Operational design to come up with the design. At the same time, the rest of the staff works in parallel to feed the design process through mission analysis products. From phase three until completion, the design team will assume their “normal” staff assignments, and convene as a design team when necessary. The challenge posed by the prerequisites for discourse will be determined by the personality of the commander, because the generally informal way of doing business in the Dutch Armed Forces will facilitate discourse within the staff. The only crucial aspect for discourse in the design team is therefore commander’s participation on an egalitarian basis. The challenge of “buy-in” of the higher level, the political body, concerns primarily the willingness to conduct discourse with the Commander of the Armed Forces. Communication with the government is already institutionalized through participation of the Commander of the Armed Forces in regular sessions with the Minister of Defense. Communication is however not synonymous to discourse.

Probably the most crucial challenge for implementing the suggested integration of Systemic Operational Design with the Operational Planning Process is the role of the commander. The commander in this case is the Commander of the Armed Forces. He is the military authority responsible for planning and directing the joint operations of the Dutch Armed Forces, and he is the military authority in direct communication with the government. However, his current schedule will most likely not have the flexibility to assign the required time to personally leading a design process, however crucial his presence might be. It is furthermore questionable if he has the possibility of setting his own agenda, due to his political commitments. A solution to this problem is assigning and mandating the chief of the Directorate of Operations as the acting

commander. This implies however a loss of direct communication with the government, which will remain the responsibility of the Commander of the Armed Forces.

CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations can be drawn from the issues addressed in this monograph:

The new role and responsibilities of the Directorate of Operations has created a number of organizational challenges for this staff. These challenges are outside the scope of this monograph, but need to be further assessed to assure a solution that does not negatively affect their planning effort in the future.

The Operational Planning Process used by the Directorate of Operations acknowledges the importance of a design, but does not offer an approach to develop this design. A dedicated design process will improve the construction of the design and therefore the overall plan.

Systemic Operational Design is a possible solution for the lacuna in the Operational Planning Process with regards to the construction of the design. Experimentation with the process in the specific setting of the Directorate of Operations is needed to validate the applicability and value for this Directorate in its new role. A way for this different approach to reveal its potential is to repeat the initial phases of the Operational Planning Process for the recently planned operation in Afghanistan.⁸⁰ In this way, a design constructed with Systemic Operational Design can be compared to the current design, which has been constructed without a dedicated process. This experiment will have to be conducted by a different group of people using the same intelligence and guidelines as was available for the Directorate of Operations in order to provide a valid comparison.

⁸⁰The Netherlands has agreed to an expansion of the ISAF mission in Afghanistan, and is currently deploying a task force for a period of two years to the province of Uruzgan in southern Afghanistan

For Systemic Operational Design to be used successfully, a knowledge of the theoretical background is necessary. An education in the theoretical background has to be implemented before an attempt to use the process is made. Not understanding the background of the process will inevitably lead to an unsuccessful process and frustration of the users.⁸¹ A subject matter expert on Systemic Operational Design can greatly enhance the understanding of the process for initial users.⁸²

Although Systemic Operational Design is intended to be an operational level process, it could also prove useful at the tactical level. The operational level is not linked to a specific force grouping anymore; tactical commanders can often have strategic consequences.⁸³ Experimentation with Systemic Operational Design at tactical level will have to be conducted to validate this assumption. A staff is necessary to perform this, therefore the battalion is the lowest level suitable to conduct this experiment.

⁸¹Based on personal experience of the author when conducting the process for the first time (January 2006)

⁸²Brigadier General (retired) Shimon Naveh acted as the mentor for the SAMS group learning the process

⁸³Naveh, 13.

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